

7. REGULATIONS AND ADVISORIES

National and international guidelines, as well as state regulations, pertinent to human exposure to acrolein are summarized in Table 7-1.

Acrolein is regulated by the Clean Water Effluent Guidelines for the following industrial point sources: electroplating, steam electric, asbestos, timber products processing, metal finishing, paving and roofing, paint formulating, ink formulating, gum, wood, and carbon black.

7. REGULATIONS AND ADVISORIES

TABLE 7-1. Regulations and Guidelines Applicable to Acrolein

Agency	Description	Value	Reference
WHO	Carcinogenic classification	Group 3 ^a	IARC 1987
<u>National</u>			
Regulations:			
a. Air:			
OSHA	PEL ceiling	0.1 ppm (0.25 mg/m ³)	29 CFR 1910.1000
b. Water:			
EPA OSW	Hazardous waste constituent	No data	EPA 1982b 49 CFR 261
c. Nonspecific media:			
EPA	Extremely hazardous substances emergency planning and release notification requirements	1 pound	EPA 1987a 40 CFR 300 and 355
	Threshold planning quantity	500 pounds	EPA 1987a 49 CFR 300 and 355
FDA	Food starch limitation	0.6%	FDA 1988 21 CFR 172.892
EPA	Pesticide classification	Restricted use	EPA 1982c 40 CFR 162.31
Guidelines:			
a. Air:			
ACGIH	TLV TWA	0.1 ppm (0.25 mg/m ³)	ACGIH 1988-89
	STEL	0.3 ppm (0.8 mg/m ³)	ACGIH 1988-89
NIOSH	IDLH	0.1 ppm (0.25 mg/m ³)	NIOSH 1985
b. Water:			
EPA OWRS	Ambient water quality criteria		EPA 1987b
	Ingesting water and organisms	0.32 mg/L	EPA 1980b
	Ingesting organisms only	0.78 mg/L	EPA 1980b
c. Other:			
EPA	Carcinogenic classification	Group C ^b	EPA 1987c
<u>State</u>			
Regulations:			
a. Air:			
Connecticut	Acceptable ambient air concentrations	5 µg/m ³ (8 hr)	NATICH 1987
Florida-Tampa		2.5 µg/m ³ (8 hr)	NATICH 1987
North Carolina		80.0 µg/m ³ (15 min)	NATICH 1987
North Dakota		2.5 µg/m ³ (8 hr)	NATICH 1987
North Dakota		8.0 µg/m ³ (1 hr)	NATICH 1987
Nevada		6.9 µg/m ³ (8 hr)	NATICH 1987
New York		0.83 µg/m ³ (1 yr)	NATICH 1987
South Carolina		1.25 µg/m ³ (24 hr)	NATICH 1987
Virginia		4.0 µg/m ³ (24 hr)	NATICH 1987
Kentucky		1 mg/m ³ (8 hr)	State of Kentucky 1986

^aGroup 3: Inadequate evidence for carcinogenicity in humans and animals.^bGroup C: Possible human carcinogen.

ACGIH = American Conference of Governmental Industrial Hygienists; EPA = Environmental Protection Agency; IARC = International Agency for Research on Cancer; IDLH = Immediately Dangerous to Life or Health Level; NIOSH = National Institute for Occupational Safety and Health; OSHA = Occupational Safety and Health Administration; OSW = Office of Solid Wastes; OWRS = Office of Water Regulations and Standards; PEL = Permissible Exposure Limit; STEL = Short-Term Exposure Limit; TLV = Threshold Limit Value; TWA = Time-Weighted Average; WHO = World Health Organization.